O'HARE RAPID TRANSIT EXTENSION
BEFORE / AFTER SURVEY

BEFORE SURVEY RESULTS

SURVEY IN COOPERATION
WITH THE CITY OF CHICAGO
AND AREA TRANSPORTATION
AGENCIES

March 1983 6335-65

CHICAGO AREA TRANSPORTATION STUDY 300 WEST ADAMS STREET CHICAGO, ILLINOIS 60606

This paper is prepared to document and promote the exchange of technical information and procedures. It represents the opinions and conclusions of the staff and does not represent the policy views of either the Policy or Work Program Committees of the Chicago Area Transportation Study. This report was prepared in part with financial assistance of the U.S. Department of Transportation, Federal Highway Administration, Urban Mass Transportation Administration and the Illinois Department of Transportation. It does not reflect the review or approval of these agencies.

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O'HARE RAPID TRANSIT EXTENSION

BEFORE/AFTER STUDY

I. BACKGROUND

The rapid transit system has been an important part of the transportation network in Chicago since the 1980's. The last major addition was in February of 1970, when the Chicago Transit Authority opened an extension of their North West Rapid Transit line from Logan Square to its present end at Jefferson Park. Now, in the Spring of 1983 the line will be further extended to River Road and by September or October directly to O'Hare Field. When this is completed, airline passengers and others will have a direct rapid transit service from the Central Business District to the airport.

It is believed that this new service will influence the way many people will travel. Not just to the O'Hare Airport but also to those intermittent areas between Jefferson Park and the River Road station in Rosemont.

This study was initiated to measure these changes and their effect on the other modes of travel and traffic within the study area. This report examines the study area, the type of data collected, the methodology used and the kind of comparisons that will be made. It also provides a summary of the initial data collected as part of the 'Before Phase'.

II. INTRODUCTION

Prior to the North West Transit line the Skokie line was opened in 1964 between Howard and Dempster. This extension was the last line to be studied to measure the changes in the ridership. The extension to O'Hare Airport provides an excellent opportunity to study the changes in travel behavior caused by a major extension of a rapid transit line. In order to prepare for a study of this magnitude a task force made up of representatives from affected agencies was formed. Their first task was to develop a study design for the before phase.

A. Task Force

On August 10, 1982 an invitation was sent to the following agencies requesting their assistance in the development of study guidelines.

Chicago Association of Commerce and Industry

City of Chicago Departments

  Public Works
  Streets and Sanitation (Bureau of Street Traffic)

Chicago and Northwestern Railway

Chicago Transit Authority

Continental Air Transport

Cook County Highway Department

Greater O'Hare Association of Industry and Commerce

Illinois Department of Transportation

  Transportation
  Public Transportation

Illinois State Toll Highway Authority

Milwaukee Road

Northeastern Illinois Planning Commission

Nortran

Regional Transportation Authority

Urban Mass Transportation Administration

The task force met on August 16, 1982 and again on September 23, 1982. These meetings resulted in a workable study design for the before phase.

B. Study Design

The Study Design is shown in APPENDIX A and was approved by the Urban Mass Transportation Administration on December 30, 1982. In addition to the work described in the study design an interim survey will be conducted. This survey is intended to measure the immediate ridership on the partial extension to River Road scheduled to open in February, 1983.

III. DATA COLLECTION

A. Field Work

The initial step in the field organization was to analyze the scope of the work and estimate person power requirements within the available work days. In order to accomplish this task it was necessary to acquire various estimates. Among these were AM peak train boardings by stations for the two railroads presently providing service in the study area. Also, some estimates on the size and locations of off street commuter parking lots and traffic volumes at intersections where delay studies were to be conducted.

After these estimates were assembled it was then possible to reasonably guage the person power needs for the AM peak, Midday and PM peak hours. In organizing the work it was agreed that AM peak hour data would not be obtained on Mondays or PM peak hour data on Friday due to atypical travel patterns. It was also considered vital that the data collection should be completed at least one week prior to the Thanksgiving holiday. The field work was started on October 4th, thus allowing twenty four working days in which to meet the schedule.

A review of the work revealed that five persons would be needed for the twenty four available AM peak periods, four persons for eight PM peak periods and three persons for seventeen Midday periods. Additional time was also allotted for transportation to and from the various work sites.

The extent of the time each person was spending in the field and the office was monitored. On a daily basis it was absolutely essential that several persons usually worked two days per week for perids of fifteen or sixteen hours. Compensation was provided by reducing hours on other days of the work so that on a weekly basis no overtime hours accrued.

One important time consideration was the person hours involved in getting to and from the study area and various work sites. It was decided that the most effective way this could be handled was to have all persons assemble at a given time at the Jefferson Park station. Before leaving the station area all persons were given their first field assignment, together with forms and equipment and were then driven to their work sites. Transportation and assignments during the day were handled in the same manner. At the conclusion of the day all persons were taken back to the Jefferson Park station.

In organizing the field work, provisions were also made so that no time would be lost due to bad weather. Intersection delay studies or expressway ramp counts could not be expected to be done in heavy rain. Boarding counts at railroad stations could be done, however, because of the shelter provided. In order to make quick changes in work scheduling due to inclement weather or person illness, the work was organized by item and location and put on index cards. This enabled the field supervisor to quickly make changes when required, and also record each item of work when completed.

Another aspect of the field work was to thoroughly orient all assigned personnel as to exactly what and how each assigned task was to be done. It is unfortunate but far to often a supervisor may think that because the operation is so simple to him or her that only a simple short explanation is needed. This can lead to the acquisition of inconsistent and useless data.

In this study, time was taken to see that each person assigned to the field knew precisely what their responsibilities were. Two of the most difficult items were station boarding counts and intersectional delay studies. But by careful planning and adequate instruction these were properly and accurately completed. These same management techniques will be applied to the 'Interim' and 'Final' data collection stages to insure consistent and uniform data.

B. Office

The field data were sent to the central office every other day. Upon receipt it was reviewed, edited and processed.

In addition to processing the field data, the central office staff was responsible for the data to be obtained from other agencies.

The RTA, CTA and Nortran provided bus routes and present ridership. The City of Chicago provided many of the twenty four hour traffic counts. The Continental Air Transport Bus Company provided ridership counts to and from O'Hare Field and the Central Business District. In addition, the Northeastern Illinois Planning Commission (NIPC) will obtain land use inventories. The summary which follows shows how the various agencies are contributing to the data collection.

SUMMARY OF AGENCY WORK ASSIGNMENTS

AGENCY	WORK DESCRIPTION	REQUIRED NO.	PERIOD(1)	PERSONS
CATS	Expressway Ramp Counts	4	AM	1
	Interseection Delay Study	8	AM	3
	Railroad Boarding Counts	17	AM	4
	Access Mode to Stations	7	AM	5
	Taxi Passenger Counts	2	AM	2
	Commuter Parking Lot Usage	17	Midday	2
	City Sticker or State License Plate Recording	17	Midday	2
	Twenty Four Hour Machine Count	8	Midday	3
	Expressway Ramp Counts	7	PM	1
	Intersection Delay Studies	8	PM	3
Chicago (DPW)	Twenty Four Hour Machine Counts	18	24	*
Convention	Location and Attendance	*	Monthly	*
Airports	Parking and Passengers	*	Daily Monthly	*
NIPC	Land Use Inventory	*	*	*
CTA	Passenger Counts on Bus Routes	9	24	*
NORTRAN	Passenger Counts on Bus Routes	10	24	*
RTA	Passenger Counts on Bus Routes	13	24	*
Continental	Bus Ridership	*	Monthly	*
Toll Authority	Volume Counts	6	24	*

*Not applicable or unknown.

(1) AM (6:30 - 8:30 AM)

PM (4:30 - 6:30 PM)

IV. MAPS

MAP (A)

Study Area

MAP (B)

Present railroad and rapid transit stations and future O'Hare Extension Stations.

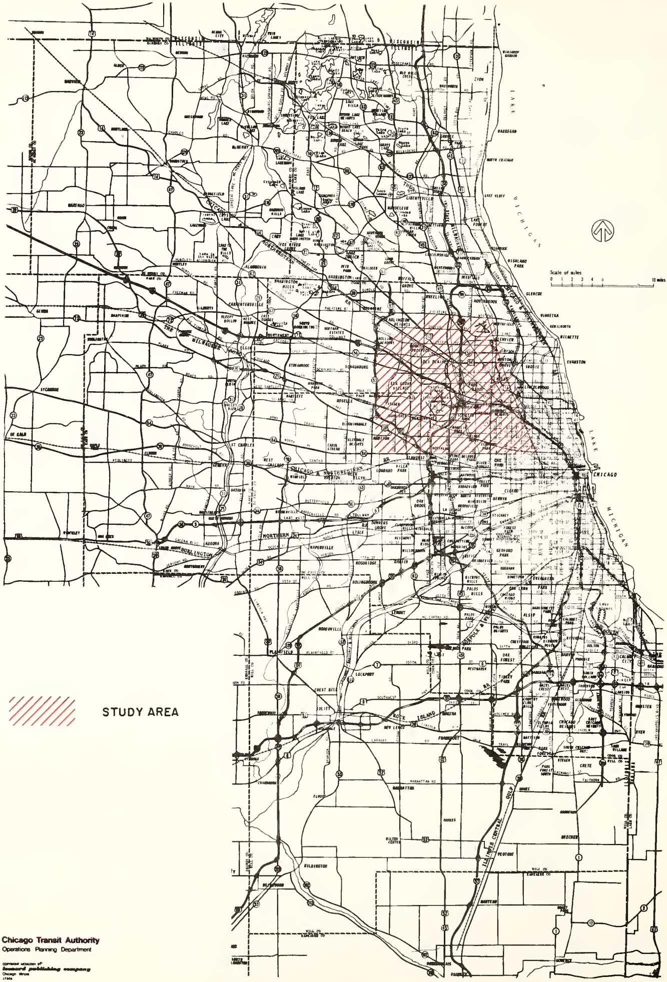
MAP (C)

Intersections at which delay studies were made, and locations where 24 hour machine counts were taken.

MAP (D)

Present surface bus routes illustrating the service they provide within the study area.

Map A STUDY AREA



Chicago Transit Authority
Operations Planning Department

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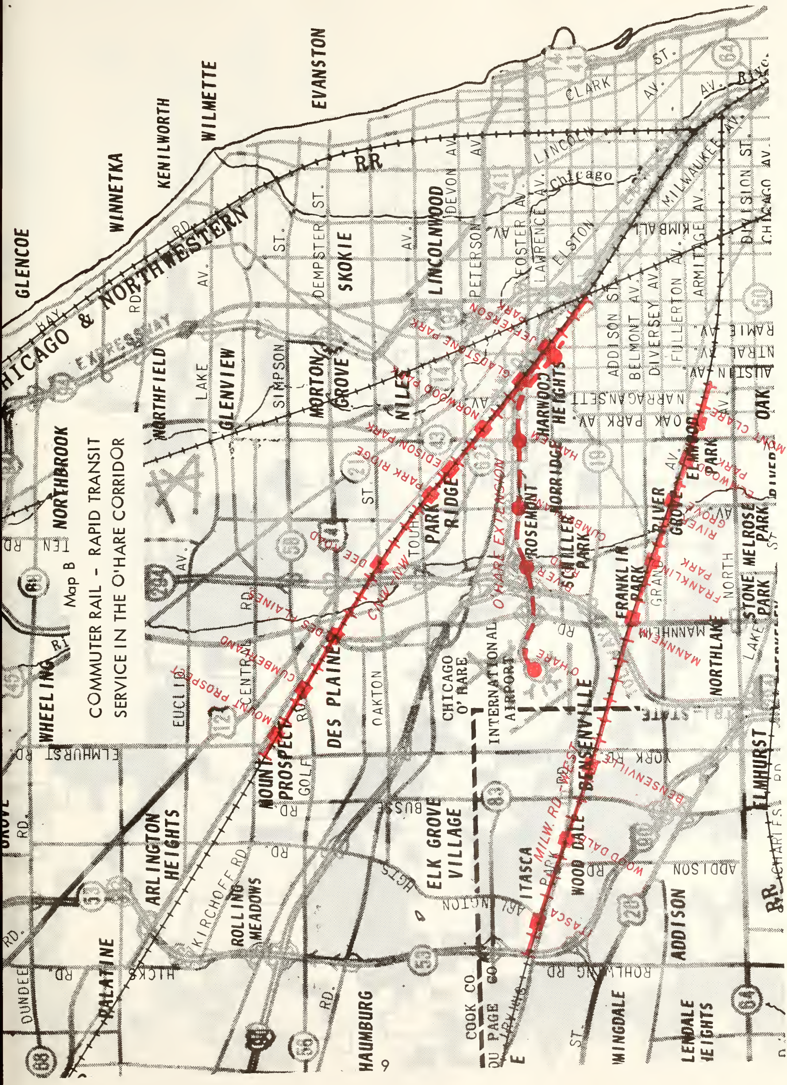
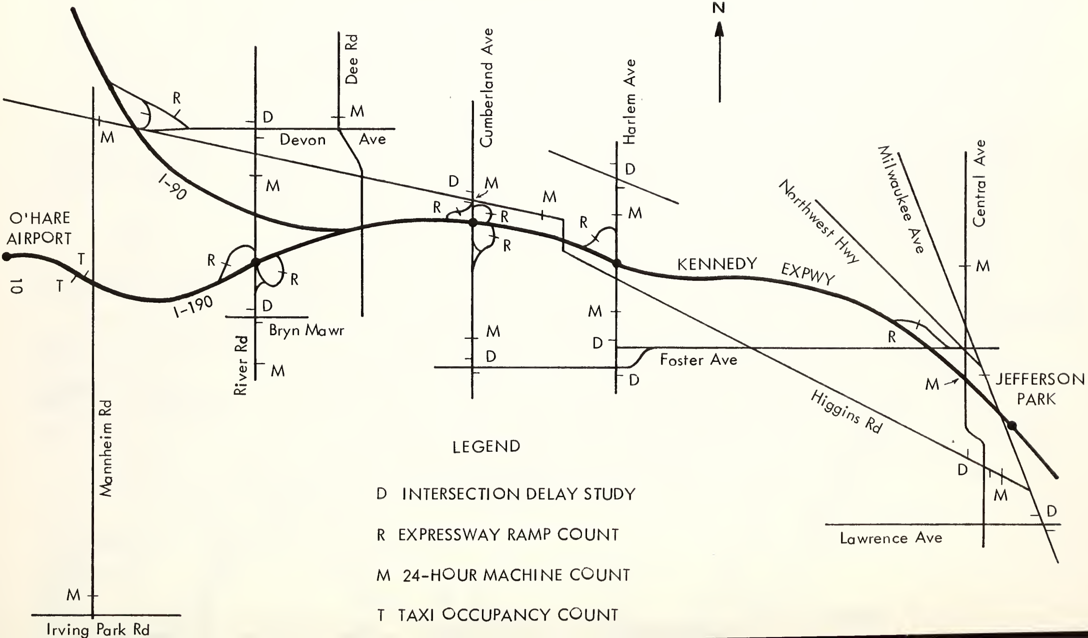
Map B

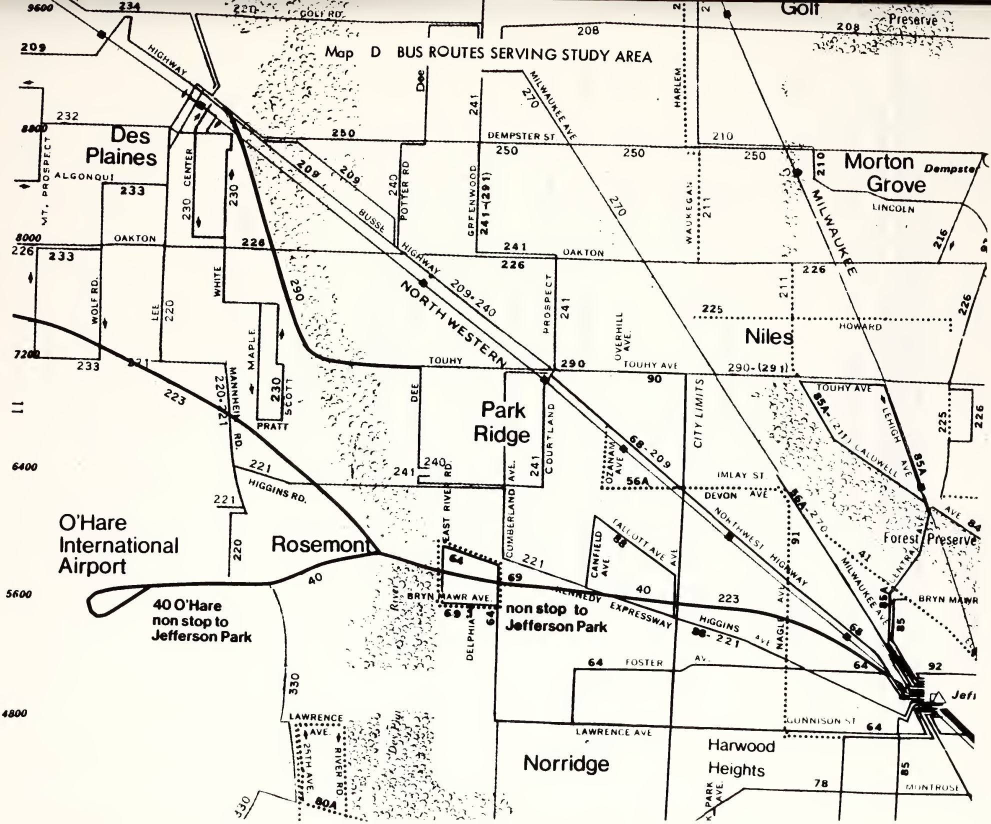
COMMUTER RAIL - RAPID TRANSIT SERVICE IN THE O'HARE CORRIDOR



Map C O'HARE EXTENSION

INTERSECTION DELAY - EXPRESSWAY RAMP COUNT - 24-HOUR MACHINE COUNT - TAXI COUNT LOCATIONS





Map D BUS ROUTES SERVING STUDY AREA

V. DATA TABULATIONS

All of the data collected is presented in a tabular format in three groupings: A-TRANSIT, B-HIGHWAY, and C-OTHER. Each major group of tabulation is proceeded by an identification page showing all the tables included.

No conclusions or findings have been included; ONLY collected data is shown.

A-TRANSIT

1. Rapid Transit
    a. CTA Passengers Jefferson Park
2. Bus
    a. Average Ridership
3. Commuter Rail
    a. CNW-Northwest Line Passengers by Station
    b. Milwaukee Road-Westline Passengers by Station
    c. Boarding Counts Comparison CATS-RTA
    d. Boarding Counts Comparison C&NW-CATS
    e. Station Approach Mode
    f. Parking-Off-Street-Commuter Stations
    g. Market Areas-Commuter Stations
4. Taxi
    a. Occupancy at O'Hare Entrance

CTA RAPID TRANSIT PASSENGERS

JEFFERSON PARK

Year	Full Fares	Reduced Fares	Transfer	Passes	Total
1981	3300	450	8700*	4250	16,700
1982**	3600	400	8300***	3900	16,200

*Includes RTA Universal Transfers.

**Preliminary November, 1982 Counts.

***Includes 1650 RTA Universal Transfers.

DATA SOURCE: CTA ticket agent counts.

AVERAGE RIDERSHIP
BUS

Chicago Transit Authority Routes*

Route Number	Route Name	Average Weekday Riders
40	O'Hare Express	3169
56A	North Milwaukee	3639
64	Foster/Lawrence	8229
68	Northwest Highway	5633
69	Cumberland Express	1707
80A	West Irving Park	2092
88	Higgins	3894
90	Harlem	6237

Regional Transportation Authority**

Company	Route Number	Route Name	Average Weekday Riders
Nortran	209	Woodfield-DesPlaines-Jefferson Park	3650
"	220	Glenview-DesPlaines-O'Hare	942
"	221	Park Ridge-Jefferson Park	1337
"	223	Elk Grove Village Express	333
"	230	DesPlaines Local South	262
"	240	Park Ridge Local-Dee Road	605
"	241	Park Ridge Local-Greenwood	796
"	270	Golf Mill-Jefferson Park-Milwaukee	4519
"	290	Touhy-Park Ridge-Rogers Park	3700
"	291	Touhy-DesPlaines-Rogers Park	592
West Towns	325	25th Avenue	69
" "	330	Manheim-LaGrange	609
" "	331	Cumberland-5th Avenue	1528

Continental Air Transport***

	Monthly Riders
Routes CBD to O'Hare	102,372

DATA SOURCE:

*CTA counts taken in March of 1982.
**RTA counts taken in September of 1982.
***Continental counts September of 1982.

NUMBER AND PERCENTAGE OF BOARDING PASSENGERS CLASSIFIED BY STATIONS*

CNW-NORTHWEST LINE

STATIONS	NUMBER BOARDING	PERCENT
Mt. Prospect	1691	35.5
Cumberland	494	10.4
DesPlaines	943	19.8
Dee Road	312	6.5
Park Ridge	680	14.3
Edison Park	265	5.6
Norwood Park	138	2.9
Gladstone	63	1.3
Jefferson Park	174	3.7
TOTAL ALL STATIONS	4760	100.0%

*Counts restricted to those inbound trains during the AM Peak period (6:30-8:30).

DATA SOURCE: Field observations - CATS.

NUMBER AND PERCENTAGE OF BOARDING PASSENGERS CLASSIFIED BY STATIONS*

MILWAUKEE ROAD - WEST LINE

STATIONS	NUMBER BOARDING	PERCENT
Itasca	350	17.1
Wood Dale	328	16.0
Bensenville	363	17.7
Mannheim	13	0.6
Franklin Park	299	14.6
River Grove	150	7.3
Elmwood Park	330	16.1
Mont Clare	218	10.6
TOTAL ALL STATIONS	2051	100%

*Counts restricted to those inbound trains during the AM Peak (6:30-8:30).

DATA SOURCE: Field observations - CATS.

BOARDING COUNTS
C&NW-CATS
COMPARISON

STATION	C&NW* October, 1982	C&NW* 1981	CATS** October, 1982	Percent of Difference
Mt. Prospect	2,331	2,613	1,691	-27.4
Cumberland	667	763	494	-25.9
Des Plaines	1,220	1,485	943	-22.7
Dee Road	425	526	312	-26.5
Park Ridge	1,022	1,225	680	-33.4
Edison Park	380	468	265	-30.2
Norwood Park	206	289	138	-33.0
Gladstone Park	61	76	63	+ 3.0
Jefferson Park	274	564	174	-36.4

*Average Daily Boardings.
**One day count of boardings (6:30-8:00 AM).

COMPARISON OF CATS BOARDING COUNTS WITH COUNTS TAKEN BY THE RTA

	CATS* Boarding Counts 1982	CATS and RTA Day of Week	RTA**Boarding Counts 1979	No. of trains
CNW				
Mt. Prospect	1691	Thursday	2034	6
Cumberland	494	Tuesday	582	6
DesPlaines	943	Tuesday	1207	10
Dee Road	312	Friday	386	5
Park Ridge	680	Thursday	950	8
Edison Park	265	Tuesday	436	5
Norwood Park	138	Friday	292	5
Gladstone	63	Wednesday	127	4
Jefferson Park	174	Wednesday	231	4

	CATS* Boarding Counts 1982	CATS and RTA Day of Week	RTA**Boarding Counts 1979	No. of trains
Milwaukee Road				
Itasca	350	Thursday	399	7
Wood Dale	328	Friday	402	7
Bensenville	363	Wednesday	352	9
Mannheim	13	Friday	14	2
Franklin Park	299	Thursday	317	7
River Grove	150	Tuesday	172	6
Elmwood Park	330	Tuesday	391	7
Mont Clare	218	Tuesday	245	4

DATA SOURCE:

*Field observations - CATS.
**Boarding counts - RTA.

*MODE OF TRAVEL TO STATION BY RAIL COMMUTER PATRONS AT A SELECTED GROUP OF LOCATIONS

	Station	Day-Date	Park -n- Ride	*** Auto Pass	Bus	**** Walk	** Other	Total
	Mount Prospect	Fri.-10/28/82	558	248	71	270	36	1183
	Des Plaines	Wed.-10/27/82	385	132	73	200	3	793
	Park Ridge	Fri.-10/22/82	357	219	22	145	11	754
	Edison Park	Thurs.-10/7/82	99	31	0	229	0	359
Road	Itasca	Wed. - 11/17/82	136	76	0	12	0	224
"	Wood Dale	Wed. - 11/10/82	208	76	0	44	1	319
"	Bensenville	Tues. - 11/16/82	120	43	14	77	2	256

*Observations made between 6:30 and 8:30 am and included coverage varying from 100% to as little as 63% depending on the geographic characteristics of the area surrounding the station.

**Motorcycle and Bicycle

**Includes "Kiss and Ride" passengers

**Includes patrons who may have parked elsewhere and walked

INVENTORY OF OCCUPIED AND UNOCCUPIED PARKING SPACES AT OFF STREET COMMUTER RAIL PARKING FACILITIES

CHICAGO AND NORTHWESTERN

Station	Parked Vehicles	Empty Spaces	Total Spaces	Percent Occupied
Mt. Prospect	664	46	710	93.5
Cumberland	336	43	379	88.7
Des Plaines	332	61	393	84.5
Dee Road	90	46	136	66.2
Park Ridge	326	107	433	75.3
Edison Park	173	29	202	85.6
Norwood Park	*	*	*	*
Gladstone	13	0	13	100.0
Jefferson Park	61	19	80	76.3
TOTAL	1995	351	2346	85.0

MILWAUKEE ROAD

Station	Parked Vehicles	Empty Spaces	Total Spaces	Percent Occupied
Itasca	141	87	228	61.8
Wood Dale	234	230	464	50.4
Bensenville	150	53	203	73.9
Mannheim	*	*	*	*
Franklin Park	195	72	267	73.0
River Grove	49	65	114	43.0
Elmwood Park	57	63	120	47.5
Mont Clare	46	2	48	95.8
TOTAL	872	572	1444	60.4

*No off-street facilities at this station.

DATA SOURCE: Field observations - CATS.

SUMMARY OF MARKET AREA OF 'PARK AND RIDE' COMMUTER RAIL PASSENGERS AT SEVENTEEN STUDY AREA RAIL STATIONS

CHICAGO AND NORTHWESTERN

Jefferson Park	Vehicles From	No.	%	Dee Road	Vehicles From	No.	%
	Chicago	300	63.6		DesPlaines	25	28.2
	Norridge	22	4.7		Park Ridge	22	24.7
	DesPlaines	20	4.2		Niles	8	9.0
	Park Ridge	11	2.3		Chicago	7	7.9
	All Others	119	25.2		All Others	27	30.2
Gladstone Park	Chicago	10	76.9	**DesPlaines**	DesPlaines	188	58.2
	All Others	3	23.1		Mt. Prospect	34	10.5
					Chicago	14	4.3
Norwood Park					Arlington Hts.	8	2.4
	(No Facilities)				Prospect Hts.	8	2.4
					All Others	71	22.2
Edison Park	Chicago	73	42.2	**Cumberland**	DesPlaines	105	32.2
	Park Ridge	29	16.8		Mt. Prospect	103	31.6
	Niles	22	12.7		Arlington Hts.	28	8.6
	Norridge	12	6.9		Wheeling	26	8.0
	DesPlaines	6	3.5		Prospect Hts.	13	4.0
	Glenview	4	2.3		All Others	51	15.6
	Harwood Hts.	4	2.3				
	All Others	23	13.3	**Mt. Prospect**	Mt. Prospect	393	55.2
					Arlington Hts.	70	9.8
Park Ridge	Park Ridge	232	63.0		Wheeling	69	9.7
	Chicago	29	8.0		Prospect Hts.	28	3.9
	DesPlaines	29	8.0		DesPlaines	20	2.8
	Niles	28	7.6		Buffalo Grove	16	2.2
	All Others	50	13.4		All Others	106	15.0

DATA SOURCE: Field observations - CATS.

SUMMARY OF MARKET AREA OF 'PARK AND RIDE' COMMUTER RAIL PASSENGERS AT SEVENTEEN STUDY AREA RAIL STATIONS

THE MILWAUKEE ROAD

Mont Clare	Vehicles From	No.	%	Wood Dale	Vehicles From	No.	%
	Chicago	32	69.6		Elk Grove	88	37.0
	Elmwood Pk.	9	19.6		Wood Dale	71	29.9
	Oak Park	3	6.5		Addison	45	18.0
	River Grove	2	4.3		Bensenville	6	2.5
					All Others	28	11.7
Elmwood Park	Elmwood Pk.	37	64.9	Itasca	Elk Grove	66	47.1
	River Grove	7	12.3		Addison	27	19.3
	Chicago	5	8.8		Itasca	22	15.7
	Bensenville	2	3.5		Bloomingdale	5	3.6
	Cicero	2	3.5		Wood Dale	4	2.9
	Norridge	2	3.5		Glendale Hts.	3	2.1
	All Others	2	3.5		All Others	13	9.3
Franklin Park	Franklin Pk.	80	40.2				
	Schiller Pk.	34	17.1				
	Melrose Pk.	22	11.1				
	Northlake	19	9.5				
	River Grove	12	6.0				
	All Others	32	16.1				
River Grove	Chicago	19	38.8				
	River Grove	18	36.7				
	Franklin Pk.	4	8.2				
	Elmwood Pk.	3	6.1				
	All Others	5	10.2				
Bensenville	Bensenville	97	65.1				
	Wood Dale	14	9.4				
	Elmhurst	13	8.7				
	DesPlaines	6	4.0				
	All Others	19	12.8				

DATA SOURCE: Field observations - CATS.

NUMBER OF TAXI CABS ENTERING AND LEAVING O'HARE FIELD DURING PEAK HOURS, CLASSIFIED BY NUMBER OF PASSENGERS

6:30 - 8:30 AM

Direction of Travel	None	Number of Passengers 1	2	3	4 or more	Total Taxis
Entering	44	257	35	6	0	342
Leaving	259	127	48	10	5	449
Total	303	384	83	16	5	791

Average Passenger Occupancy of Cabs Entering 1.0
Average Passenger Occupancy of Cabs Leaving 0.6

4:00 - 6:00 PM

Direction of Travel	None	Number of Passengers 1	2	3	4 or more	Total Taxis
Entering	80	318	115	48	18	579
Exiting	344	246	94	15	2	701
Total	424	564	209	63	20	1280

Average Passenger Occupancy of Cabs Entering 1.3
Average Passenger Occupancy of Cabs Exiting 0.7

DATA SOURCE: Field observations - CATS.

B. Highway

1. Volumes
    a. Expressway Ramps
    b. Tollway Ramps
    c. Arterial Streets - 24 Hour Machine Counts
    d. Kennedy Expressway at Nagle
2. Delays
    a. Intersections

SUMMARY OF VEHICLES ENTERING AND/OR EXITING EXPRESSWAY RAMPS CLASSIFIED BY VEHICLE TYPE, DIRECTION OF TRAVEL AND TIME OF DAY

6:30 - 8:30 AM

Expressway Ramp	Onto	Cars	Trucks	Taxis	Buses	Other	Total
Exit - EB	SB River Rd.	574	60	21	20	0	675
Exit - EB	NB River Rd.	204	31	32	9	0	276
Exit - EB	SB Cumberland	1407	43	51	0	1	1502

4:30 - 6:30 PM

Expressway Ramp	Onto	Cars	Trucks	Taxis	Buses	Other	Total
Enter - WB	NB River Rd.	262	8	6	0	0	207
Enter - WB	SB River Rd.	192	9	6	0	0	287
Enter - WB	NB Cumberland	534	23	3	0	24	584
Enter - WB	SB Cumberland	927	26	14	0	34	1001
Enter - WB	NB &SB Harlem	837	48	5	0	5	895
Enter - WB	WB Foster	910	42	10	22	51	1035

Expressway Ramp N.W. Tollway	Onto	Cars	Trucks	Taxis	Buses	Other	Total
Enter - WB	EB Higgins	325	4	1	1	8	339
Enter - WB	WB Higgins/Devon	1830	7	1	0	61	1899

NOTE: Northbound Cumberland Ave. Ramp was closed due to construction. Harlem Ave. exit ramp closed to east bound traffic.

DATA SOURCE: Field observations - CATS.

AVERAGE DAILY TRAFFIC
TOLLWAY
SELECTED RAMPS

RAMPS			
FROM	TO	1981	1982
I-90 EB	I-190 WB	7,330	7,780
I-294 NB	I-190 WB	9,300	8,840
I-294 SB	I-190 WB	6,540	7,130
I-190 EB	I-294 NB	9,660	12,830
I-190 EB	I-294 SB	8,700	8,700

DATA SOURCE: Illinois Toll Highway Authority.

SUMMARY OF 24-HOUR MACHINES COUNTS AT SELECTED LOCATIONS

Street	Location	Dir.	24-Hour Volume	AM Peak (6AM-9AM)	PM Peak (4PM-7PM)
Central Ave.	N. of Milwaukee	NB	9,870	2,158	1,882
Central Ave.	N. of Milwaukee	SB	9,591	1,600	2,419
Milwaukee Ave.	S. of Foster	NWB	9,936	1,614	2,064
Milwaukee Ave.	S. of Foster	SEB	9,780	2,177	1,890
Higgins Rd.	E. of Central	EB	3,7087	1,098	712
Higgins Rd.	E. of Central	WB	4,752	893	1,385
Harlem Ave.	S. of Talcott	NB	10,928	1,922	2,110
Harlem Ave.	S. of Talcott	SB	13,394	2,118	2,700
Harlem Ave.	S. of Higgins	NB	16,607	2,753	2,958
Harlem Ave.	S. of Higgins	SB	13,034	1,756	2,762
Higgins Rd.	E. of Canfield	NWB	9,033	1,455	1,901
Higgins Rd.	E. of Canfield	SEB	5,549	910	1,272
Cumberland Ave.	S. of Higgins	NB	10,460	1,903	2,081
Cumberland Ave.	S. of Higgins	SB	7,477	1,080	1,326
Cumberland Ave.	N. of Foster	NB	13,588	2,330	2,628
Cumberland Ave.	N. of Foster	SB	11,809	1,560	2,118
Mannheim Rd.	N. of Irving Pk.	NB	26,369	5,310	5,028
Mannheim Rd.	N. of Irving Pk.	SB	24,889	4,344	6,443

DATA SOURCE: City of Chicago machine counts.

SUMMARY OF 24-HOUR MACHINES COUNTS AT SELECTED LOCATIONS

Street	Location	Dir.	24-Hour Volume	AM Peak (6AM-9AM)	PM Peak (4PM-7PM)
Higgins Rd.	E. of Mannheim	EB	14,909	3,485	3,322
Higgins Rd.	E. of Mannheim	WB	11,113	2,116	2,427
River Rd.	S. of Higgins	NB	18,445	2,888	4,564
River Rd.	S. of Higgins	SB	14,992	3,008	3,140
River Rd.	S. of Bryn Mawr	NB	16,063	2,629	3,867
River Rd.	S. of Bryn Mawr	SB	17,857	2,550	2,899
Dee Rd.	N. of Higgins	NB	6,753	1,308	1,963
Dee Rd.	N. of Higgins	SB	5,632	1,541	1,311

DATA SOURCE: City of Chicago machine counts.

KENNEDY EXPRESSWAY @ NAGLE*

DATE	DAY	ENTRANCE RAMP	3 LANE COUNT STATION
10/1	F	9461	75535
10/4	M	8946	70417
10/7	Th	9549	72447
10/12	Tu	9286	72626
10/14	Th	9061	74708
10/18	M	8966	69956
10/20	W	9029	72737
10/21	Th	9177	72538
10/22	F	9653	75931
10/25	M	9319	70939
10/26	Tu	9336	71958
10/27	W	9435	73064
10/29	F	9595	77241
11/5	F	9172	75657
11/10	W	9182	71904
11/12	F	9376	74283
11/17	W	8882	73995
11/18	Th	8609	73106

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*Outbound direction only.

DATA SOURCE: IDOT Surveillance.

SUMMARY OF VEHICULAR DELAY TIME DURING PEAK HOURS AT SELECTED INTERSECTIONS (AM PEAK 6:30-8:30) (PM PEAK 4:30-6:30)

INTERSECTION	TIME	APPR	DIR	SECONDS AVG DELAY APPROACH VEH	SECONDS AVG DELAY/STOPPED VEH	TOTAL APPROACH VOLUME	PCT OF VEH STOPPED
Milwaukee/Lawrence	AM	S	NB	4.4	16.1	832	27.4
Cumberland/Foster	AM	S	NB	8.0	19.9	1,230	40.3
Cumberland/Foster	PM	N	SB	10.3	22.8	1,751	45.1
Harlem/Talcott	PM	S	NB	10.6	26.1	1,462	40.8
River Rd./Bryn Mawr	AM	S	NB	12.1	25.9	1,720	46.8
River Rd./Bryn Mawr	PM	N	SB	12.3	32.9	1,892	37.5
Higgins/Central	PM	E	WB	14.9	21.7	1,132	68.8
Harlem/Foster	AM	S	NB	15.8	31.3	1,754	50.6
Harlem/Talcott	AM	N	SB	16.0	19.0	1,546	84.3
Milwaukee/Lawrence	PM	N	SB	18.8	34.5	1,158	54.6
Harlem/Foster	PM	N	SB	20.8	37.5	1,692	55.6
Cumberland/Higgins	PM	S	NB	22.1	34.5	1,309	64.2
Higgins/Central	AM	W	EB	23.7	26.6	1,977	89.1
Cumberland/Higgins	AM	N	SB	25.9	36.3	1,282	71.4
River Rd./Higgins	PM	S	NB	31.7	44.1	2,704	71.8
River Td./Higgins	AM	N	SB	36.9	45.9	1,506	81.2

DATA SOURCE: Field observations - CATS.

C. OTHER

1. Conventions
    a. Attendance
2. O'Hare Aiport
    a. Parking
    b. Passengers and Flights
3. Land Use

ESTIMATED CONVENTION ATTENDANCE AT O'HARE AND CHICAGO CENTRAL AREA SITES SEPTEMBER THROUGH NOVEMBER OF 1982

Location

	O'HARE AREA			Chicago Central Area			GRAND
MONTH	HOTELS	CENTERS	TOTALS	HOTELS	CENTERS	TOTAL	TOTAL
September	5,425	(1)	5,425	34,390	43,000	77,940	83,365
October	14,450	14,000	28,451	48,205	119,200	167,405	195,856
November	15,450	33,500	48,950	36,096	94,500	130,596	179,546
TOTAL	35,325	47,500	82,826	119,241	256,700	375,941	458,767

(1) One event open to public.

(2) All events headquartered at O'Hare area hotels.

(3) One event open to public. Event(s) with 10,000 attendance headquartered at area hotels.

(4) Two events open to public. Event(s) with 40,200 attendance headquartered at area hotels.

(5) Three events open to public. Event(s) with 22,500 attendance headquartered at area hotels.

NOTE: Events occuring in two months are included in the first month.

DATA SOURCE: Chicago Convention Digest, July-December, 1982. Excludes estimates of events open to the public. If needed, these data can be obtained from the specific event director.

O'HARE AIRPORT MONTHLY PARKING AND AVERAGE PARKING COST FROM SEPTEMBER THROUGH NOVEMBER (22nd) OF 1982

	Number and Exits	Average Fee(a)
September	277,386	$5.66
October	280,464	6.17
November (1-22nd)	189,779	6.34
TOTAL	747,629	$6.02(b)

(a) Average fee of total paid exits. These rates are in use:

1. Satellite lots, maximum of $3.00/day.
2. Main lot, maximum of $6.00/day: $1.75 1st hr. plus 50¢/hr. to 12 hours.
3. Short-term lot, maximum of $12.00/day: $2.00 1st hr. plust $1.00/hr. to 12 hours.

(b) Estimated weighted average of three months shown.

DATA SOURCE: City of Chicago.

O'HARE AIRPORT MONTHLY PASSENGERS AND FLIGHTS FOR SEPTEMBER OF 1982

PASSENGERS			AIRCRAFT/FLIGHTS		
Scheduled	Unscheduled	Total	Scheduled	Unscheduled	Total
2,629,399	146,442	2,775,841	36,104	14,806	50,910

(1) Data for other months (October and November) is not available at this time.

(2) Passengers includes originating or terminating passengers only, i.e., only those utilizing the transportation facilities in the study area.

(3) Includes cargo.

DATA SOURCE: City of Chicago.

CTA RAPID TRANSIT EXTENSION TO O'HARE

NEW CONSTRUCTION WITHIN ONE MILE RADIUS OF STATION

square feet
/acres
(s.f. per acre)

1970-1980	Total 3 stations	Harlem	Cumberland	Rosemont
Commercial + Residential	7,630,268 /163.32 (46,000)	552,340 /12.5 (44,000)	5,678,043 /113.97 (50,000)	1,399,885 /36.85 (32,000)
within ½ mi. 'inner ring'	3,317,795 /72.83 (46,000)	153,365 /4.09 (32,000)	2,491,868 /58.97 (42,000)	670,562 /9.77 (69,000)
within ½-1 mi. 'outter ring'	4,312,473 /90.49 (48,000)	396,975 /8.41 (47,000)	3,186,175 /55 (52,000)	729,323 /27.08 (27,000)
Commercial	3,078,063 /97.45 (32,000)	198,335 /3.00 (66,000)	1,479,843 /57.6 (26,000)	1,399,885 /36.85 (32,000)
within ½ mi. 'inner ring'	1,990,295 /55.96 (36,000)	2,865 /.59 (5,000)	1,275,868 /45.6 (22,000)	670,562 /9.77 (69,000)
within ½-1 mi. 'outter ring'	1,128,768 /41.49 (27,000)	195,470 /2.41 (81,000)	203,975 /12 (17,000)	729,323 /27.08 (27,000)
Residential	4,552,205 /65.87 (69,000)	354,005 /9.5 (31,000)	4,198,200 /56.37 (74,000)	0
within ½ mi. 'inner ring'	1,368,500 /16.87 (81,000)	152,500 /3.5 (44,000)	1,216,000 /13.37 (91,000)	0
within ½-1 mi. 'outter ring'	2,982,200 /49 (61,000)	201,505 /6 (34,000)	2,982,200 /43 (69,000)	0

DATA SOURCE: Northeastern Illinois Planning Commission

CTA RAPID TRANSIT EXTENSION TO O'HARE

NEW CONSTRUCTION WITHIN ONE MILE RADIUS OF STATION

square feet
/acres
(s.f. per acre)

1970-1975	Total 3 stations	Harlem	Cumberland	Rosemont
Commercial + Residential	4,109,988 /67.05 (61,000)	195,835 /2.88 (68,000)	3,043,591 /44.97 (68,000)	870,562 /19.2 (45,000)
within ½ mi. 'inner ring'	1,936,099 /26.33 (74,000)	2,865 /.59 (5,000)	1,262,672 /15.97 (79,000)	670,562 /9.77 (69,000)
within ½-1 mi. 'outer ring'	2,173,889 /40.72 (53,000)	192,970 /2.29 (84,000)	1,780,919 /29 (61,000)	200,000 /9.43 (21,000)
Commercial	1,447,338 /34.68 (42,000)	195,835 /2.88 (68,000)	380,941 /12.6 (30,000)	870,562 /19.2 (45,000)
within ½ mi. 'inner ring'	948,849 /15.96 (59,000)	2,865 /.59 (5,000)	275,422 /5.6 (49,000)	670,562 /9.77 (69,000)
within ½-1 mi. 'outer ring'	498,489 /18.72 (27,000)	192,970 /2.29 (84,000)	105,519 /7.0 (15,000)	200,000 /9.43 (21,000)
Residential	2,662,650 /32.37 (82,000)	0	2,662,650 /32.37 (82,000)	0
within ½ mi. 'inner ring'	987,250 /10.37 (95,000)	0	987,250 /10.37 (95,000)	0
within ½-1 mi. 'outer ring'	1,675,400 /22 (76,000)	0	1,675,400 /22 (76,000)	0

DATA SOURCE: Northeastern Illinois Planning Commission

CTA RAPID TRANSIT EXTENSION TO O'HARE

NEW CONSTRUCTION WITHIN ONE MILE RADIUS OF STATION

square feet
/acres
(s.f. per acre)

1975-1980	Total 3 stations	Harlem	Cumberland	Rosemont
Commercial + Residential	3,520,280 /96.27 (37,000)	356,505 /9.62 (37,000)	2,634,452 /69 (38,000)	529,323 /17.65 (30,000)
within ½ mi. 'inner ring'	1,381,696 /46.5 (30,000)	152,500 /3.5 (44,000)	1,229,196 /43 (29,000)	0
within ½-1 mi. 'outter ring'	2,138,584 /49.77 (43,000)	204,005 /6.12 (34,000)	1,405,256 /26 (54,000)	529,323 /17.65 (30,000)
Commercial	1,630,725 /62.77 (26,000)	2,500 /.12 (21,000)	1,098,902 /45 (24,000)	529,323 /17.65 (30,000)
within ½ mi. 'inner ring'	1,000,446 /40 (25,000)	0	1,000,446 /40 (25,000)	0
within ½-1 mi. 'outter ring	630,279 /22.77 (28,000)	2,500 /.12 (21,000)	98,456 /5 (20,000)	529,323 /17.65 (30,000)
Residential	1,889,555 /33.5 (56,000)	354,005 /9.5 (37,000)	1,535,550 /24 (64,000)	0
within ½ mi. 'inner ring'	381,250 /6.5 (59,000)	152,500 /3.5 (44,000)	228,750 /3 (76,000)	0
within ½-1 mi. 'outter ring'	1,508,305 /27 (56,000)	201,505 /6 (34,000)	1,306,800 /21 (62,000)	0

DATA SOURCE: Northeastern Illinois Planning Commission

CTA RAPID TRANSIT EXTENSION TO O'HARE

VACANT LAND WITHIN ONE MILE RADIUS OF STATION

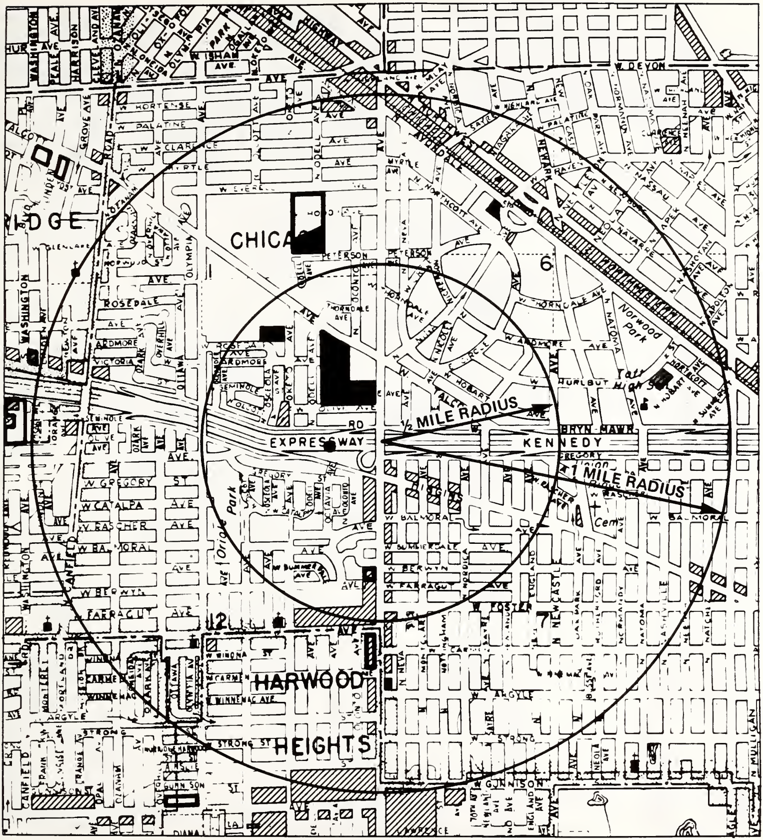
AS OF MAY, 1980

ZONING	Total 3 stations	Harlem	Cumberland	Rosemont
Total All Zonings	323.75 acres	10. acres	93.25 acres	220.5 acres
R-1 & R-2	38. acres	0	38. acres	-
within ½ mi. 'inner ring'	27.5 acres	0	27.5 acres	-
within ½-1 mi. 'outter ring'	10.5 acres	0	10.5 acres	-
R-4	61.25 acres	10. acres	51.25 acres	-
within ½ mi. 'inner ring'	51.25 acres	0	51.25 acres	-
within ½-1 mi. 'outter ring'	10. acres	10. acres	0	-
B-5 (inner ring)	4. acres	0	4. acres	-
'D' Commercial	35. acres	-	-	35. acres
within ½ mi. 'inner ring'	20. acres	-	-	20. acres
within ½-1 mi. 'outter ring'	15. acres	-	-	15. acres
'E' Commercial & Lt Industrial (outter ring)	26.5 acres	-	-	26.5 acres
'F' Industrial (outter ring)	169. acres	-	-	169. acres

DATA SOURCE: Northeastern Illinois Planning Commission

FIGURE 1: HARLEM AVENUE STATION

Vacant land and new construction, CTA Rapid Transit O'Hare extension.



☐ VACANT LAND 1970

☐ NEW CONSTRUCTION 1970 - 1975

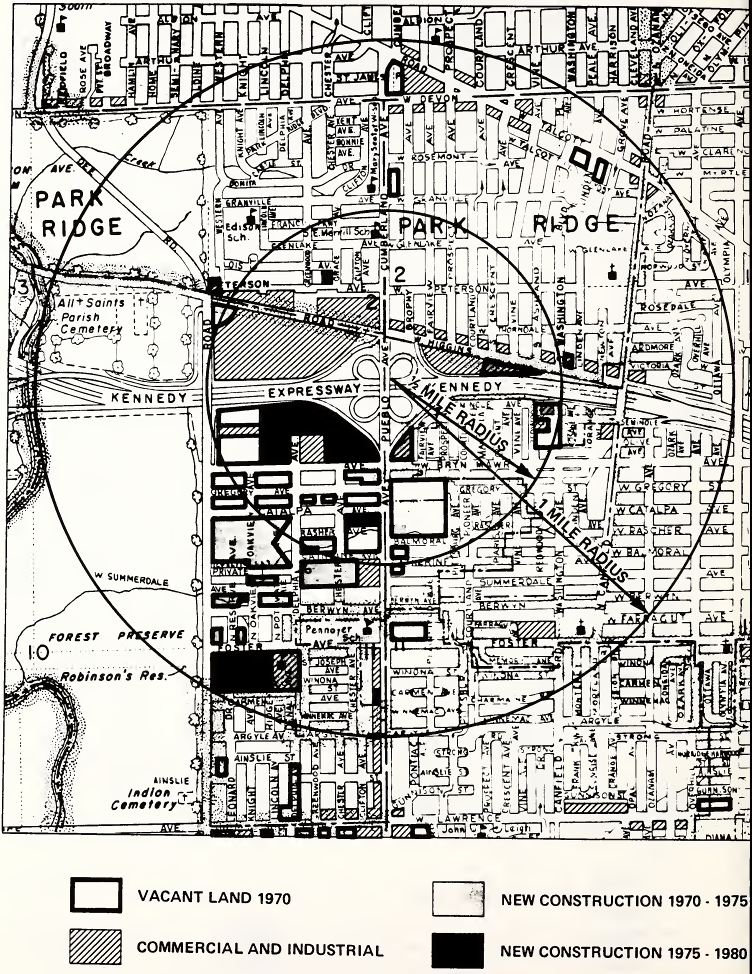
▨ COMMERCIAL AND INDUSTRIAL

■ NEW CONSTRUCTION 1975 - 1980

DATA SOURCE: Northeastern Illinois Planning Commission

FIGURE 2: CUMBERLAND AVENUE STATION

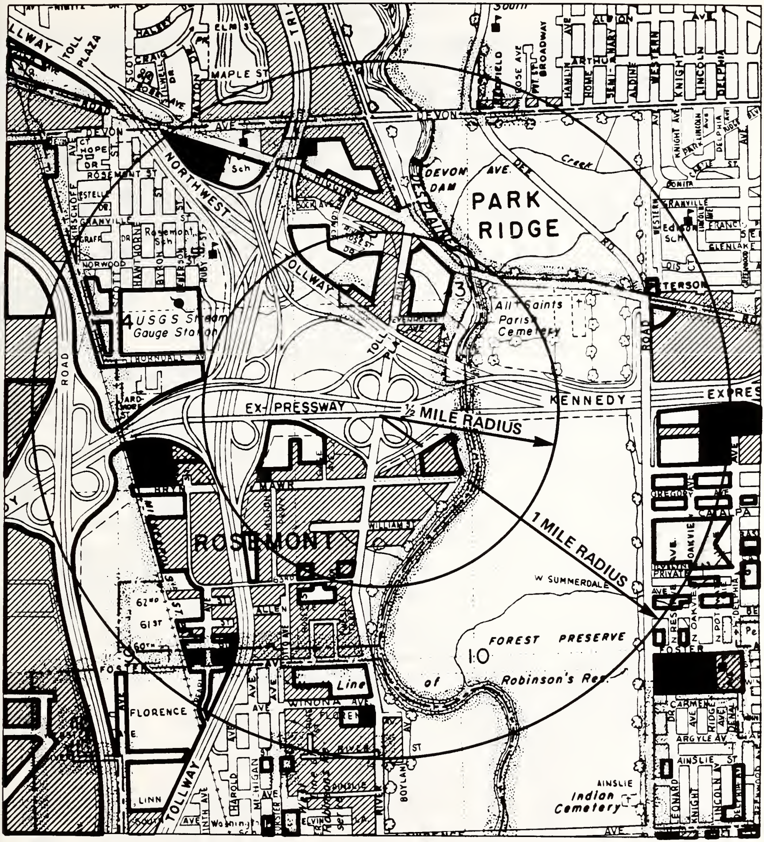
Vacant land and new construction, CTA Rapid Transit O'Hare extension.



DATA SOURCE: Northeastern Illinois Planning Commission

FIGURE 3: ROSEMONT STATION

Vacant land and new construction, CTA Rapid Transit O'Hare extension.



☐ VACANT LAND 1970

▨ COMMERCIAL AND INDUSTRIAL

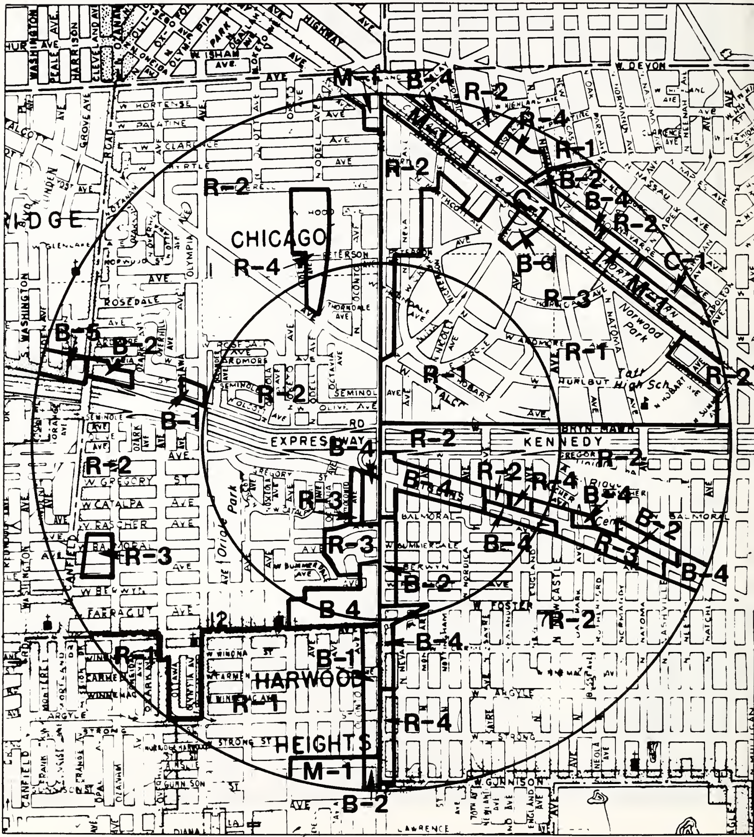
☐ NEW CONSTRUCTION 1970 - 1975

■ NEW CONSTRUCTION 1975 - 1980

DATA SOURCE: Northeastern Illinois Planning Commission

FIGURE 4: HARLEM AVENUE STATION ZONING

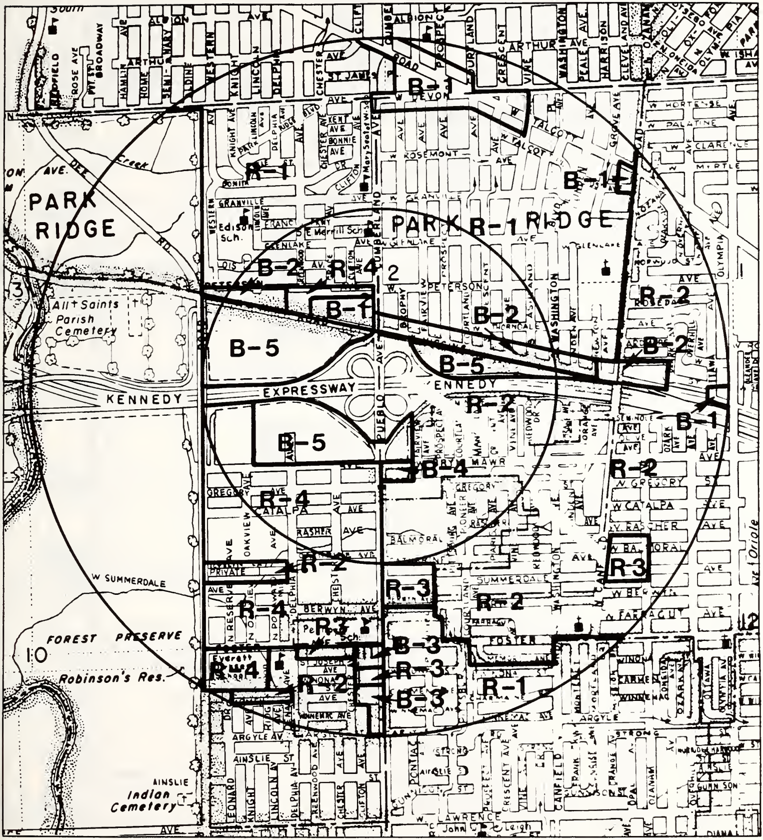
CTA Rapid Transit O'Hare extension.



DATA SOURCE: Northeastern Illinois Planning Commission

FIGURE 5: CUMBERLAND AVENUE STATION ZONING

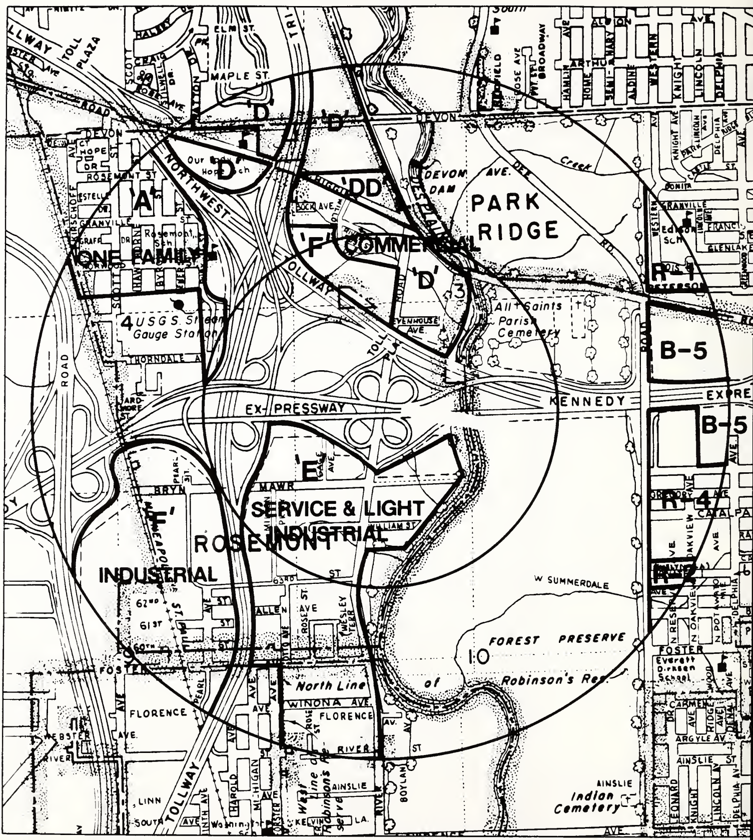
CTA Rapid Transit O'Hare extension.



DATA SOURCE: Northeastern Illinois Planning Commission

FIGURE 6: ROSEMONT STATION ZONING

CTA Rapid Transit O'Hare extension.



DATA SOURCE: Northeastern Illinois Planning Commission

CTA RAPID TRANSIT EXTENSION TO O'HARE

NEW CONSTRUCTION 1970-80 WITHIN ONE MILE RADIUS OF STATION

CHICAGO	6,178,608 s.f.	on	121.2 acres	=	51,000 s.f./acre
Harlem Station	528,340 s.f.	on	11.8 acres	=	45,000 s.f./acre
Cumberland Station	5,548,268 s.f.	on	106.47 acres	=	52,000 s.f./acre
Rosemont Station	102,000 s.f.	on	2.93 acres	=	35,000 s.f./acre
HARWOOD HEIGHTS Harlem Station	24,000 s.f.	on	.7 acre	=	34,000 s.f./acre
NORRIDGE Cumberland Station	98,456 s.f.	on	5. acres	=	20,000 s.f./acre
PARK RIDGE Cumberland Station	31,319 s.f.	on	2.5 acres	=	13,000 s.f./acre
ROSEMONT Rosemont Station	1,284,657 s.f.	on	33.42 acres	=	44,000 s.f./acre
SCHILLER PARK Rosemont Station	13,228 s.f.	on	.5 acre	=	26,000 s.f./acre

DATA SOURCE: Northeastern Illinois Planning Commission

CTA RAPID TRANSIT EXTENSION TO O'HARE

SQUARE FEET OF NEW CONSTRUCTION 1970-1980
WITHIN 1 MILE RADIUS OF INTERMEDIATE STATIONS

	Harlem	Cumberland	Rosemont	Total
Commercial	198,335	1,428,387	1,399,885	2,626,607
Residential	354,005	4,249,656	0	4,603,661
Total C & R	552,340	5,678,043	1,399,885	7,230,268

DATA SOURCE: Northeastern Illinois Planning Commission

OHARE RAPID TRANSIT EXTENSION

NEW CONSTRUCTION WITHIN ONE MILE RADIUS OF STATION 1970-80

HARLEM AVENUE STATION

CHICAGO

Columbia National Bank Walk-up/ Drive-in Facility 5250 N. Harlem	1,140 s.f. on .03 acres
Jo Jo's Restaurant Harlem & Foster	1,225 s.f. on .5 acres
Enzo's Restaurant addition Harlem & Foster	500 s.f. on .06 acres
Interdome Real Estate 5000 N. Harlem	2,500 s.f. on .12 acres
Single family residences vicinity Seminole & Harlem	152,500 s.f. on 3.5 acres
Ressurection Retirement Center 7300 W. Peterson	140,000 s.f. on 5 acres
Norwood Park Home 6016 N. Niva	61,505 s.f. on 1 acre
Taft H. S. addition Hurlbut & Northcott	168,970 s.f. on 1.59 acre

HARWOOD HEIGHTS

Retail Shops by Spricoff Development 5140 N. Harlem	24,000 s.f. on .7 acre

DATA SOURCE: Northeastern Illinois Planning Commission

O'HARE RAPID TRANSIT EXTENSION

NEW CONSTRUCTION WITHIN ONE MILE RADIUS OF STATION 1970-80

CUMBERLAND AVENUE STATION

CHICAGO

National Can Corporation 8101 W. Higgins	135,000 s.f. on 1.0 acre
3 O'Hare Towers & Presidential Plaza 8400 W. Bryn Mawr	1,000,446 s.f. on 40 acres
Rodeway Inn Kennedy Expressway at Cumberland	127,368 s.f. on 4 acres
Holy Ressurection Serbian Church 5700 N. Redwood	13,054 s.f. on .6 acre
Single family homes vicinity Cumberland & Balmoral	16,000 s.f. on .37 acre
Three story apartments vicinity Catalpa & Cumberland	228,750 s.f. on 3 acre
Three story apartments vicinity Catherine & Chester	971,250 s.f. on 10 acres
The Pavillion Apartments 5441 N. East River Road	1,450,400 s.f. on 15 acres
Three story apartments vicinity Summerdale & Oakview	225,000 s.f. on 7 acres
Dirkson elementary school 8601 W. Foster	74,200 s.f. on 4.5 acres
Three story apartments Foster & East River Road	1,306,800 s.f. on 21 acres

NORRIDGE

Shopping Center and Apartments	98,456 s.f. on 5 acres

PARK RIDGE

AANA Building 216 Higgins	11,000 s.f. on 2 acres
Albert Wohlers Insurance 1500 Higgins Rd.	20,319 s.f. on .5 acre

DATA SOURCE:

O'HARE RAPID TRANSIT EXTENSION

NEW CONSTRUCTION WITHIN ONE MILE OF STATION 1970-80

ROSEMONT STATION

CHICAGO

One-story industrial buildings vicinity Pearl & Foster	102,000 s.f. on 2.93 acres

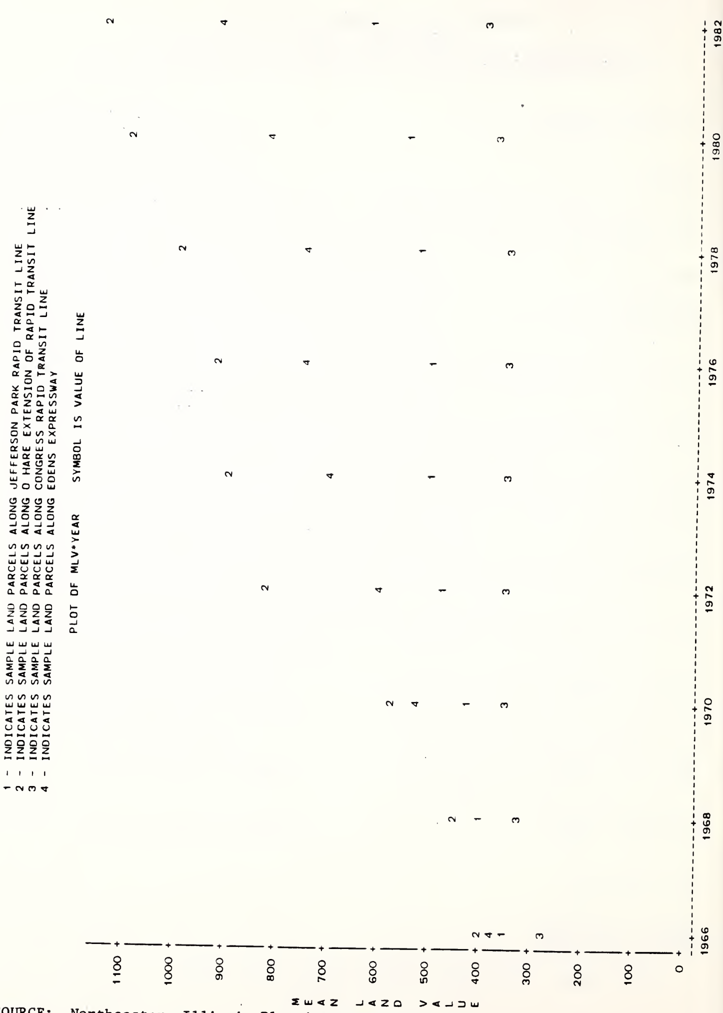
ROSEMONT

Commerce Plaza 9801 Higgins	318,000 s.f. on 16 acres
O'Hare Executive Towers Tri-State Expressway & Higgins	196,095 s.f. on 4.5 acres
Red Devil Mfrg. Co. 5995 N. West River Road	10,000 s.f. on .35 acre
Hyatt Regency O'Hare Addition Kennedy Expressway & West River Rd.	250,000 s.f. on 4 acres
Holiday Inn O'Hare 5400 N. River Rd.	350,000 s.f. on 4 acres
One-story industrial building 5500 N. River Rd.	7,272 s.f. on .5 acre
One-story industrial buildings vicinity 61st & Pearl	12,500 s.f. on .36 acre
One-story industrial buildings vicinity 62nd & Pearl	20,000 s.f. on .57 acre
One-story industrial buildings vicintiy Bryn Mawr & Pearl	50,000 s.f. on 1.72 acre
One-story industrial buildings vicinity Bryn Mawr & Pearl	17,500 s.f. on .5 acre
One Hyatt Center 9700 Bryn Mawr	53,290 s.f. on .92 acre

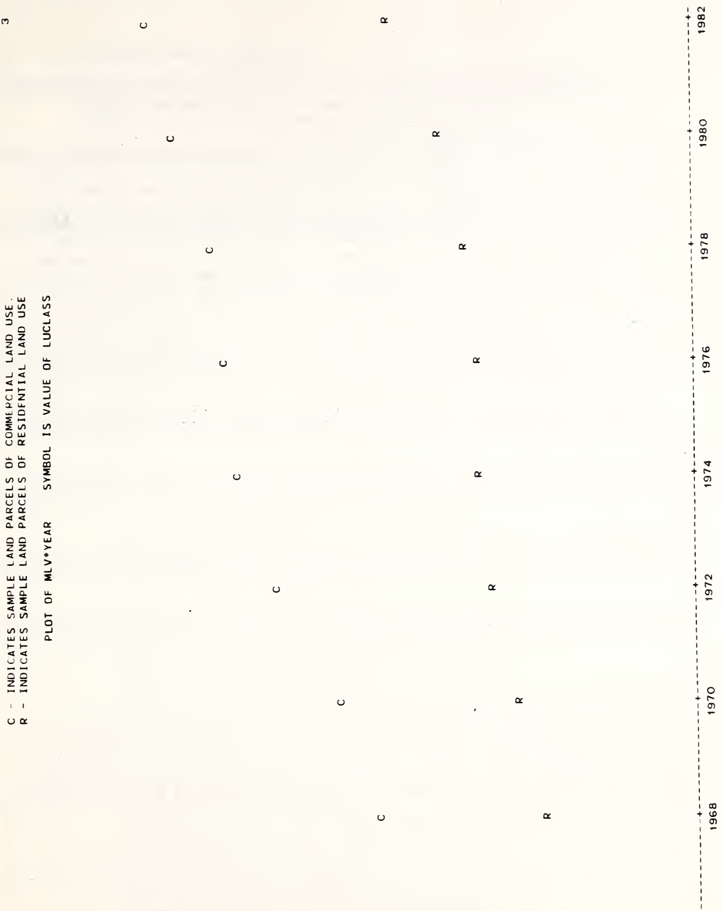
SCHILLER PARK

Northern Builders 5060 N. River Rd.	13,228 s.f. on .5 acre

DATA SOURCE: Northeastern Illinois Planning Commission



DATA SOURCE: Northeastern Illinois Planning Commission



TA SOURCE: Northeastern Illinois Planning Commission

ALL SAMPLE LAND PARCELS

OBS	PARCEL	LINE	RPARCEL	LUCLASS	V1982	V1980	V1978	V1976	V1974	V1972	V1970	V1968	V1966
1	111	1	1	C	300	300	300	300	300	400	400	400	400
2	112	1	2	C	500	500	500	600	500	500	450	450	450
3	113	1	3	R	250	200	175	150	175	175	175	175	160
4	121	1	4	C	600	500	500	450	400	400	300	250	200
5	122	1	5	C	900	900	800	750	800	750	600	550	350
6	123	1	6	R	300	200	175	175	175	175	160	150	150
7	131	1	7	C	600	600	600	600	750	700	550	300	300
8	132	1	8	C	375	295	250	250	250	250	250	250	219
9	133	1	9	R	400	300	250	250	250	250	225	200	180
10	141	1	10	C	1500	1200	900	900	900	800	750	750	700
11	142	1	11	C	750	700	650	600	500	400	400	400	400
12	143	1	12	R	650	550	500	500	475	425	350	300	250
13	151	1	13	C	312	312	312	312	312	312	312	312	312
14	152	1	14	C	450	400	350	350	350	350	300	225	200
15	153	1	15	R	500	400	325	325	325	300	250	220	190
16	161	1	16	C	1500	1500	1500	1500	1500	1500	1500	1500	1500
17	162	1	17	C	900	750	700	600	600	500	350	300	300
18	163	1	18	R	650	500	450	400	375	350	300	275	225
19	211	2	19	C	1200	1200	1000	1000	1000	900	750	750	750
20	212	2	20	C	1500	1500	1200	1200	1200	1000	800	750	650
21	213	2	21	R	550	475	400	350	325	310	275	225	200
22	221	2	22	C	2000	2000	2000	2000	2000	2000	1200	850	750
23	222	2	23	C	1000	1000	1200	1200	1200	1200	600	550	400
24	223	2	24	R	800	800	700	700	600	500	313	220	200
25	231	2	25	C	1000	875	812	750	750	562	375	192	156
26	232	2	26	C	1500	1500	1200	500	500	375	312	219	125
27	233	2	27	R	800	600	500	625	625	625	500	300	300
28	311	3	28	C	90	75	75	75	100	125	150	160	160
29	312	3	29	C	350	350	350	350	200	250	250	250	250
30	313	3	30	R	75	75	75	75	100	125	150	150	150
31	321	3	31	C	600	600	600	600	700	700	600	600	400
32	322	3	32	C	350	300	300	300	300	350	350	350	300
33	323	3	33	R	225	190	190	200	220	220	220	200	200
34	331	3	34	C	600	600	550	550	550	550	550	500	500
35	332	3	35	C	450	450	400	400	400	400	400	350	350
36	333	3	36	R	325	260	260	260	260	260	250	220	180
37	341	3	37	C	450	450	400	450	450	400	400	400	300
38	342	3	38	C	400	350	350	350	350	350	350	300	250
39	343	3	39	R	350	290	275	275	275	275	250	250	250
40	351	3	40	C	600	600	550	500	500	400	400	350	300
41	352	3	41	C	700	650	750	750	650	600	550	487	300
42	353	3	42	R	400	375	300	275	250	250	250	240	200
43	411	4	43	C	250	250	250	250	250	250	250	250	250
44	412	4	44	C	500	450	400	400	400	400	300	250	250
45	413	4	45	R	500	375	300	300	300	300	250	200	190
46	421	4	46	C	2000	1700	1500	1500	1500	1000	900	850	850
47	422	4	47	C	1000	900	900	900	900	700	550	550	450
48	423	4	48	R	600	475	425	375	340	330	290	260	225
49	431	4	49	C	2000	1700	1500	1500	1500	1200	900	900	900
50	432	4	50	C	1000	1000	1000	1000	800	800	600	450	300
51	433	4	51	R	550	425	350	315	290	260	230	220	220
52	441	4	52	C	1200	1200	1100	1100	1000	1000	900	650	600
53	442	4	53	C	900	850	800	900	850	800	800	650	200
54	443	4	54	R	500	450	375	340	300	290	250	225	200

DATA SOURCE: Northeastern Illinois Planning Commission

VI. DISCUSSION AND FUTURE PHASES

CONCLUSIONS, RECOMMENDATIONS AND GENERAL DISCUSSION ON HOW THE DATA COLLECTED IN THE "AFTER" PHASE WILL BE USED, ANALYZED AND REPORTED

In its simplest context the objective of this study will be to compare "Before" and "After" data and determine the changes attributed to the new O'Hare extension. Unfortunately the analysis of the changes that will occur is not simple. Considerations must be given to changes due to the price of fuel, land use developments, the economy and travel patterns that may occur whether or not the O'Hare extension was built. Only when these factors are considered and given a value will it be possible to measure the specific changes that can be attributed to the O'Hare extension.

In addition to the above we are also aware that the "After" data must be as comparable to the "Before" data as possible. In order to attain this goal we should be alerted to normal week day variations, changes due to severe weather and the ability of individual field workers to perform their assigned tasks properly. The human factor in the acquisition of good data is often not given the priority it should. In a study such as this where "Before" and "After" conditions are to be compared, it is obvious that an equally high quality data collection effort must be achieved in both efforts.

The analysis will consist of comparing the "Before Phase Data" with the "After Phase Data". The following will be compared:

Jefferson Park Ridership
CTA Bus Ridership
Suburban Bus Ridership
Continental Bus Ridership
24 Hour Traffic Volumes
Traffic Volumes - Peak Periods
Intersectional Delays -- Peak Periods
Commuter Rail Ridership by Station
Commuter Rail Parking Lot Usage
Expressway Ramp Counts - Peak Periods
O'Hare Taxi Passenger Counts

The extension of the new rapid transit line will require the collection of new data that did not exist in the first phase. Collection of this new data will help us to determine the number of riders using the new service that have shifted from each of the other modes of travel. New information that will be acquired will consist of the following:

Parking lot usage at the River Road and Cumberland stations and a sticker survey to determine the market area.

Access mode counts during AM peak periods at the Harlem, Cumberland and River Road stations.

Bus route changes in service area.

Commuter Rail and Rapid Transit on board surveys.

Employee survey.

Land Use Survey.

One objective of the analysis will be to refine the raw comparisons so that other variables as mentioned, are given a value and used to adjust the results. For example, suppose there is considerable added activity at the O'Hare Exposition Hall as compared to that which occurred in the "Before" Phase. It would be reasonable to assume that a certain portion of the River Road station patronage might be attributed to that factor. Additional commercial building developments in the Rosemont area as well as increased activities at the Horizon Stadium must also be considered. When these examples as well as the influence of the other variables have been applied a value, adjustments can be made. The results should produce within reasonable accuracy the overall drawing power of the new O'Hare Extension.

Another important objective will be to determine how much the Extension may have changed traffic volumes on arterial streets. Special interest of course will center on those streets which service the stations. One of the main concerns are the AM and PM peak volumes. Special consideration will be given to delays at some specific intersections. For example, the traffic at River Road and Higgins during PM peak hours often was controlled by special patrols from the Rosemont Police Department. This was frequently necessary despite the left turn bays and automated signals. Will this condition worsen as a result of the new River Road Station?

Finally a good look will have to be taken at the parking situation at the Harlem Avenue station. Will extensive parking on the residential streets cause any problems? Will the development of off street private parking lots have an impact on the area environment?

As can be seen the effect the O'Hare Extension will have, could be considerable. It will be a joint effort of all involved in this project to ascertain these effects.

APPENDIX A

Study Design

Purpose

The purpose of the study is to measure shifts in travel brought about by the opening of the new service to the airport. The usage of the various travel modes in the corridor will be measured before and after the opening. Some of these modes are competitors and will lose traffic to the new mode; others are access modes and may gain as a result. Enough detailed disaggregate data will be obtained to explain why any observed diversions occur and to identify the types of trips which are diverted. Such explanatory data will be helpful in generalizing the findings to other transit service extensions. The study finding may also be useful in solving problems which arise related to the new service.

Method of Study

Data will be collected for the Before Phase in FY 82 and for the After Phase in FY 83. Two main types of data are to be collected. The first consists of aggregate volumes of users on various parts of the transportation system; these are numbers of persons or vehicles using each of the modes, parking lot usage, and overall travel time, on both competing and access modes. Measurements made in the first phase will be repeated in the second.

The second type of data consists of the details of individual trips, as to travel time and cost of the line-haul and access links of the trip; origin and destination; trip purpose; mode of access; and a few other items useful in explaining travel behavior. This type of data will be obtained in two ways: 1) from questionnaires handed out on board the new service, and 2) from similar questionnaires distributed to employees at O'Hare. These would be mailed back by respondents. Supplementary direct interviews would be obtained as needed.

The on-board survey will be done in the After phase only. For travelers diverting to the new line information can be obtained both for the previous mode used and the present mode, with all of the relevant characteristics.

The employee survey will be done in the After Phase.

The items of data to be collected are given below along with sources of data.

Aggregate Measures

1. Volume Totals

   (a) CTA Rapid Transit (Milwaukee).

   Obtain number of riders by boarding station from the CTA. The CTA publishes direct counts of riders by station annually (in November) and in addition tabulates and publishes for internal use riders by station every 4-5 weeks. These figures are compiled for the entire system.

   (b) CTA Buses

   From CTA, as above. Riders are counted by line.

   (c) NORTRAN

   The availability of data to be determined. CATS will perform counts if necessary.

   (d) CNW (NW Line)

   To be obtained from RTA boarding counts. Actual counts by station were made in 1979. Since then estimates have been made from fares. Another actual count by station is planned for the fall of 1982. CATS should make arrangements to get these figures from the RTA and to coordinate with them concerning specification and timing of the count.

   (e) Milwaukee Railroad (West Line)

   To be obtained from the railroad (total monthly riders). No actual count is planned for this fall but good estimates of the number of riders by month and by zone, taken from ticket sales data, are available from the railroad until October 1 and presumably from the RTA after that date. An actual count was made by station in the first quarter of 1982.

   (f) Continental Airport Bus (to airport)

   To be obtained from Continental. The company maintains ridership data continuously.

   (g) Taxi (to airport only)

   1) Numbers of vehicles (and some characteristics) from the CATS survey.

   2) Direct observation by CATS to be undertaken at the airport for number of passengers and current vehicle volume.

(h) Selected Highway Volumes

Vehicle counts classified by competing, access, and other routes. The source for these will probably be: (1) marked routes and some county routes from IDOT, District 1; 2) other county routes from Cook County; 3) city routes from the Chicago Dept. of Streets and Sanitation; 4) new supplementary counts to be made by CATS if needed. Counts will be needed on these roads:

1) Kennedy Expressway and Tollways including ramps
2) Milwaukee Avenue
3) Higgins Road
4) Northwest Highway
5) Des Plaines River Road
6) Cumberland Avenue
7) Canfield Road
8) Harlem Avenue
9) Sayre Avenue
10) Naragansett Avenue
11) Austin Avenue
12) Central Avenue
13) Mannheim Road

The counts on items 5-12 should be taken close to the site of the Extension since these are access related.

2. Travel Time and Congestion

(a) The CTA: Loop to Jefferson Park; Jefferson Park to airport. To be obtained from schedules, perhaps modified by direct observation by CATS.

(b) Speed runs on the Kennedy Expressway

(c) Suburban railroad schedules for possible changes in train frequency.

(d) Speed runs on Harlem River Road, Cumberland and Milwaukee

(e) Delay counts at selected intersections near the Extension at Harlem, Cumberland, River Road and Jefferson Park.

3. Parking Lot Usage

The O'Hare lot usage to be obtained from City or airport authorities if available. Otherwise a direct count will be made by CATS. CATS will perform a count to determine the usage at Jefferson Park and at selected stations along both railroads. In the After phase, counts will be taken at the Harlem, Cumberland, and River Rd. stations.

4. Land Use

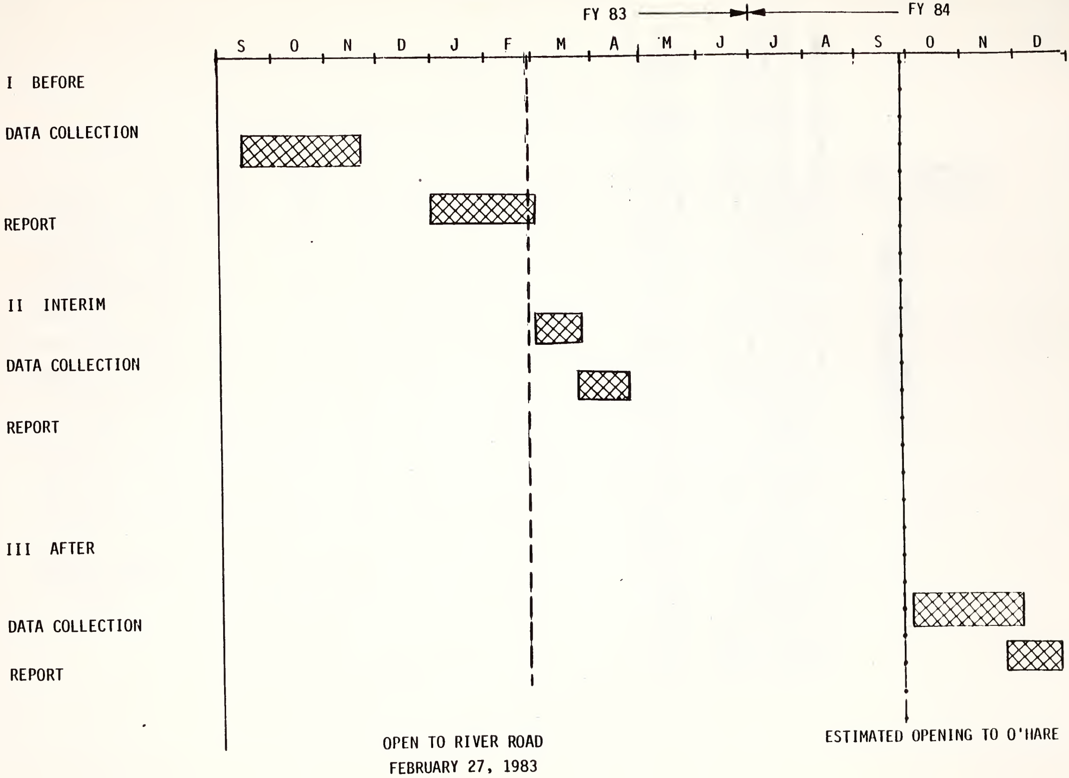
Aerial photo interpretation of land use changes will be conducted by NIPC.

5. Schedule

A tentative schedule is attached.

O'HARE RAPID TRANSIT EXTENSION

SCHEDULE ENTIRE STUDY



O'HARE RAPID TRANSIT STATION
BEFORE/AFTER STUDY

Supplementary Work Elements in conjunction with the O'Hare Corridor Study.

Work Element (H) - Obtain inventory of vehicle stickers delineated by town or in the absence of a sticker the state license plate number. This inventory will be restricted to those stations and lots at which vehicle counts and spaces are taken. Data for this work element will be recorded on Form #9/25/82.

Work Element (J) -- Obtain mode of travel used by commuters at the same stations where vehicle counts and sticker inventories will be taken. This data will be obtained by observation and will recorded on Form #9/26/82.

CHICAGO AND NORTHWESTERN

List of Stations and Arrival Time of Trains at which Boarding Counts will be Required

Stations	Time	Mount Prospect	Cumber-land	Des-Plaines	Dee Road	Park Ridge	Edison Park	Norwood Park	Gladstone Park	Jefferson Park	Number of Cars	Number of Technicians Required
Arlington Hts.	6:42	6.48	6:51	6:55	X	X	X	X	X	X		
Des Plaines	6:46	X	X	6:46	6:50	6:55	6:58	7:00	7:04	7:07		
Arlington Hts.	6:56	7:01	7:05	7:10	X	7:16	X	X	X	X		
Des Plaines	7:05	X	X	7:05	7:09	7:13	7:16	7:20	7:23	7:26		
Arlington Hts.	7:06	7:11	7:14	7:19	X	7:26	X	X	X	X		
Palatine	7:19	X	7:31	X	X	X	X	X	X	X		
Des Plaines	7:22	X	X	7:22	7:26	7:30	7:33	7:36	7:39	7:42		
Barrington	7:23	7:24	X	7:41	X	7:48	X	X	X	X		
Arlington Hts.	7:33	7:38	7:42	7:45	X	X	7:54	7:58	X	X		
Des Plaines	7:33	X	X	7:33	7:37	7:41	7:44	7:48	7:51	7:54		
Arlington Hts.	7:45	7:51	7:53	7:57	8:02	8:06	X	X	X	X		
Number of Trains Stopping at Each Station		6	6	10	5	8	5	5	4	4		

THE MILWAUKEE ROAD

List of Stations and Arrival Time of Trains at which Boarding Counts will be Required

Stations	Time	Itasca	Wood Dale	Bensen-ville	Mann-heim	Franklin Park	River Grove	Elmwood Park	Mont Clare	Number of Cars	Number of Technicians Required
Roselle	6:43	6:47	6:50	6:55	X	7:00	7:03	7:06	X		
"	6:51	6:56	6:59	7:04	X	7:09	7:12	7:15	7:17		
"	6:59	7:03	7:06	7:11	7:16	7:18	X	7:22	7:24		
"	7:08	7:12	X	7:17	X	7:23	7:26	7:28	7:30		
"	7:13	X	7:20	7:24	X	X	7:32	7:35	X		
Roselle	7:21	7:26	7:30	7:35	X	X	X	X	X		
Bensenville	7:45	X	X	X	7:51	7:53	7:56	7:58	8:00		
Roselle	7:47	7:53	7:56	7:59	X	8:05	X	X	X		
Roselle	8:08	8:13	8:16	8:19	X	8:25	8:38	8:30	X		
Number of Trains Stopping At Each Station		7	7	8	2	7	6	7	4		

O'HARE RAPID TRANSIT EXTENSION
BEFORE/AFTER STUDY

Work Element (A) - Measure delay time using Form #9/18/82 at the following locations and time periods.

River Road and Higgins--North Leg--South Bound Traffic -- 6:30 - 8:30 AM
River Road and Higgins--North Leg--North Bound Traffic -- 4:30 - 6:30 PM
Cumberland and Higgins--North Leg--South Bound Traffic -- 6:30 - 8:30 AM
Cumberland and Higgins--South Leg--North Bound Traffic -- 4:30 - 6:30 PM
Harlem and Higgins--South Leg--North Leg Bound Traffic -- 6:30 - 8:30 AM
Harlem and Foster--North Leg--South Leg Bound Traffic -- 4:30 - 6:30 PM
Central and Higgins -- West Leg -- East Bound Traffic -- 6:30 - 8:30 AM
Central and Higgins -- East Leg -- West Bound Traffic -- 4:30 - 6:30 PM
Lawrence and Milwaukee--South Leg--North Bound Traffic -- 6:30 - 8:30 AM
Lawrence and Milwaukee--North Leg--South Bound Traffic -- 4:30 - 6:30 PM

Work Element (B) -- Manual count of passenger cars and trucks using Form #9/19/82 at the following locations at time periods.

West Bound Traffic Entering Kennedy Expressway at Harlem - 4:30 - 6:30 PM
East Bound Traffic Exiting Kennedy Expressway at River Road--6:30 - 8:30 PM
West Bound Traffic Entering Kennedy Expressway at River Road--4:30 - 6:30 PM
East Bound Traffic Exiting Kennedy Expressway at Cumberland--6:30 - 8:30 AM
West Bound Trafic Entering Kennedy Expressway at Cumberland--4:30 - 6:30 PM
West Bound Traffic Entering Kennedy Expressway at Foster -- 4:30 - 6:30 PM

Work Element (C) -- Obtain number of taxis and number of passengers entering and leaving O'Hare Airport using Form #9/20/82 during the following hours--West bound traffic into O'Hare at 6:30-8:30 and East bound from O'Hare 4:30-6:30 PM.

Work Element (D) -- Obtain directional twenty-four hour machine counts with hourly totals and record counts on Form #9/21/82 at the following loations.

River Road South of Bryn Mawr
River Road South of Higgins
Cumberland South of Higgins
Cumberland between Foster and Kennedy
Harlem South of Higgins
Harlem South of Talcott
Milwaukee - North of Terminal but before Foster
Central Avenue -- North of Milwaukee Avenue
Higgins Avenue - East of Central
Higgins Avenue -- East of Canfield
Dee Road -- South of Devon
Mannheim -- North of Irving Park
Higgins -- East of Mannheim

Work Element (E) -- Obtain count of commuter parked vehicles (and empty spaces) of On-Off Street commuter lots between 10:00 AM and 3:00 PM and record said data on Form #9/22/82 at the following locations:

Milwaukee Railroad	Northwestern Railroad
Itasca	Mount Prospect
Woodale	Des Plaines
Bensenville	Park Ridge
	Edison Park

Work Element (F) -- Obtain passenger boarding counts at stations, trains and times as listed on Form #9/17/82--All counts will be recorded on Form #9/23/82.

Work Element (G) -- Obtain count of commuter parked vehicles on public streets in Jefferson Park terminal area and record data on Form #9/23/82.

APPENDIX B

LIST OF FORMS USED IN DATA COLLECTION

Form No.	Name
91882	Intersection Delay Study
91982	Manual Counts on Expressway Ramps
92082	Taxi Occupancy Counts
92182	24-Hour Machine County by Direction
92282	Commuter rail Parking Facility Usage
92482	Commuter Rail Station Boarding Counts
92482	Commuter Parked Vehicles on Public Streets in the Vicinity of the Jefferson Park Rapid Transit Station
92582	Inventory of Vehicle Stickers and State License Plate Numbers of Autos Parked in Commuter Rail Parking Lots
92682	Observed Mode of Travel to Commuter Rail Stations with Inventoried Parking Facilities

FORM-91882
SHEET ___ OF

OHARE RAPID TRANSIT EXTENSION
BEFORE-AFTER STUDY
INTERSECTION DELAY STUDY

INTERSECTION ____________________ APPROACH ______________ MOVEMENT __________

DAY / DATE ____________________ WEATHER ______________ OBSERVER __________

TIME (MINUTE STARTING)	TOTAL NUMBER OF VEHICLES STOPPED IN APPROACH AT TIME:				APPROACH VOLUME	
	+0 SEC.	+15 SEC.	+30 SEC.	+45 SEC.	NUMBER STOPPED	NUMBER NOT STOPPING
SUB-TOTAL						
TOTAL						

FORM

OHARE RAPID TRANSIT EXTENSION
BEFORE / AFTER STUDY
MANUAL COUNTS ON EXPRESSWAY RAMPS

AM COUNTS : DAY ___ DATE _____ TIME ___ TO ___ DIRECTION _______

EXITING TO __________ WEATHER __________ TECHNICIANS ____

TIME PERIOD		PASSENGER CARS	TRUCKS	TAXIS	BUSES	OTHER	TO
FROM	TO						
6:30 AM	7:00 AM						
7:00 AM	7:30 AM						
7:30 AM	8:00 AM						
8:00 AM	8:30 AM						
TOTAL							

PM COUNTS: DAY ___ DATE ____ TIME ____ TO ____ DIRECTION _______

ENTERING FROM _________ WEATHER _________ TECHNICIANS ____

TIME PERIOD		PASSENGER CARS	TRUCKS	TAXIS	BUSES	OTHER	TO
FROM	TO						
4:30 PM	5:00 PM						
5:00 PM	5:30 PM						
5:30 PM	6:00 PM						
6:00 PM	6:30 PM						
TOTAL							
GRAND TOTAL AM AND PM PERIODS							

FORM 92

OHARE RAPID TRANSIT EXTENSION
BEFORE / AFTER STUDY
TAXI / OCCUPANCY COUNTS

DAY / DATE ________ WEATHER ________ OBSERVER ________

TIME : START ________ FINISH ________ ENTER ___ LEAVE ___

TIME	NO PASSENGERS	1 PASS.	2 PASS.	3 PASS.	4+ PASS.	TOTAL TAXIS
FROM: ____ TO : ____						
FROM: ____ TO : ____						
FROM: ____ TO : ____						
FROM: ____ TO : ____						
TOTAL						

PRECISE LOCATION OF COUNT ________

COMMENTS

OHARE RAPID TRANSIT EXTENSION

BEFORE / AFTER STUDY

24 HOUR MACHINE COUNTS BY DIRECTION

STREET ____________ LOCATION ____________ DIR ______

WEATHER ____________ TECHNICIANS ____________

START : DAY ________ DATE ____________ TIME ________

END : DAY ________ DATE ____________ TIME ________

HOUR	TOTAL
00-1	
1-2	
2-3	
3-4	
4-5	
5-6	
6-7	
7-8	
8-9	
9-10	
10-11	
11-12	
12-13	
13-14	
14-15	
15-16	
16-17	
17-18	
18-19	
19-20	
20-21	
21-22	
22-23	
23-24	
TOTAL	

FORM 92282

OHARE RAPID TRANSIT EXTENSION
BEFORE-AFTER STUDY
COMMUTER RAIL PARKING FACILITY USAGE

RAILROAD ______________ STATION ____________________

PARKING FACILITY I.D. __________ LOCATION________________

DAY ____ DATE ________ TIME OF DAY ________ TECHNICIAN ___

ON STREET ___ OFF STREET ___ METER _ STICKER _ OTHER

CARS PARKED __________

VACANT SPACES __________

TOTAL SPACES __________

COMMENTS:

FOR

OHARE RAPID TRANSIT EXTENSION
BEFORE/AFTER STUDY
COMMUTER RAIL STATION BOARDING COUNTS

STATION ________________ DAY ___ DATE ____________ TECHNICIAN
TIME: FROM __________ TO __________ WEATHER ________________

TRAIN	BOARDING COUNT

TOTAL BOARDING ____________

COMMENTS:

FORM:9.

OHARE RAPID TRANSIT EXTENSION

BEFORE/AFTER STUDY

COMMUTER PARKED VEHICLES ON PUBLIC STREETS IN THE VICINITY OF THE JEFFERSON PARK RAPID TRANSIT STATION

DAY ______ DATE ____________ TIME OF DAY __________ TECHNICIANS ________

WEATHER CONDITIONS ______________________________

STREET	SIDE	FROM	TO	CARS PARKED

COMMENTS:

FORM:

SHEET

OHARE RAPID TRANSIT EXTENSION
BEFORE / AFTER STUDY

INVENTORY OF VEHICLE STICKERS AND STATE LICENSE PLATE NUMBERS OF AUTOS PARKED IN COMMUTER RAIL PARKING LOTS

STATION ____________________ LOT I.D. ____________________ TIME ____

DAY ______ DATE ________ WEATHER ________________ TECHNICIANS ____

TOWN AND VEHICLES PARKED	LICENSE PLATE
MISCELLANEOUS:	

FORM: 9.

OHARE RAPID TRANSIT EXTENSION
BEFORE / AFTER STUDY
OBSERVED MODE OF TRAVEL TO COMMUTER RAIL STATIONS WITH INVENTORIED PARKING FACILITIES

STATION ____________ DAY ______ DATE ______ TIME: FROM ____ TO _

WEATHER ____________ TECHNICIANS ____________

MODE OF TRAVEL TO COMMUTER RAIL STATION				
DRIVE AND PARK	AUTO PASSENGER INCL. 'KISS AND RIDE'	TRANSIT BUS / CHARTER BUS	WALK	BICYCL MOTORC

COMMENTS :

Under the direction of

JOSEPH F. LIGAS
Deputy, Operations Planning

Author
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Assisted by
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[illegible] 1374(83)
2-17-98.